

Amendments to the Claims

Please cancel Claims 3-4, 13-14, 23-25, and 29-31. The Claim Listing below will replace all prior versions of the claims in the application:

Claim Listing

1. (Cancelled)
2. (Cancelled)
3. (Cancelled)
4. (Cancelled)
5. (Cancelled)
6. (Cancelled)
7. (Cancelled)
8. (Cancelled)
9. (Cancelled)
10. (Cancelled)
11. (Cancelled)
12. (Cancelled)

13. (Cancelled)
14. (Cancelled)
15. (Cancelled)
16. (Cancelled)
17. (Cancelled)
18. (Cancelled)
19. (Cancelled)
20. (Cancelled)
21. (Cancelled)
22. (Cancelled)
23. (Cancelled)
24. (Cancelled)
25. (Cancelled)
26. (Cancelled)
27. (Cancelled)

28. (Cancelled)
29. (Cancelled)
30. (Cancelled)
31. (Cancelled)
32. (Previously Presented) A medical gas conserving device for delivery a fixed volume of medical gas to a patient in response to an inhalation, comprising:
- a timing gas chamber for storing a user-adjustable volume of gas up to a first pressure;
 - a vent to exhaust the gas stored in the timing gas chamber to atmosphere;
 - a pilot valve disposed between the timing gas chamber and the vent, the pilot valve biased in a closed position to inhibit gas flow from the timing gas chamber to the vent, the pilot valve in gas communication with a patient via a passage such that a vacuum in the passage opens the pilot valve to allow gas flow from the timing gas chamber to the vent; and
 - a slave valve disposed between a regulated supply of medical gas and a delivery passage to the patient, the slave valve in gas communication with the timing gas chamber such that when gas in the timing gas chamber is at the first pressure the slave valve is in a closed position to inhibit the flow of medical gas from the regulated supply to the delivery passage, and when gas in the timing gas chamber is below the first pressure the slave valve is in an opened position to allow medical gas to flow from the regulated supply to the delivery passage.
33. (Previously Presented) The device of Claim 32 wherein the timing gas chamber includes a moveable piston acting as a wall of the timing gas chamber, the moveable piston being positionable by a user to adjust the volume of the timing gas chamber.

34. (Previously Presented) The device of Claim 32 wherein the first pressure is determined by the area of an orifice.
35. (Previously Presented) The device of Claim 34 wherein the orifice is selected from a plurality of orifices, each orifice having a respective area.
36. (Previously Presented) The device of Claim 32 wherein the delivery valve member is a flexible membrane.
37. (Previously Presented) A method of manufacturing a medical gas conserving device for delivery a fixed volume of medical gas to a patient in response to an inhalation, comprising:
- forming a timing gas chamber for storing a user-adjustable volume of gas up to a first pressure;
 - forming a vent to exhaust the gas stored in the timing gas chamber to atmosphere;
 - disposing a pilot valve between the timing gas chamber and the vent, the pilot valve being biased in a closed position to inhibit gas flow from the timing gas chamber to the vent, the pilot valve in gas communication with a patient passage such that a vacuum in the passage opens the pilot valve to allow gas flow from the timing gas chamber to the vent; and
 - disposing a slave valve between a regulated supply of medical gas and a delivery passage to the patient, the slave valve in gas communication with the timing gas chamber such that when gas in the timing gas chamber is at the first pressure the slave valve is in a closed position to inhibit the flow of medical gas from the regulated supply to the delivery passage, and when gas in the timing gas chamber is below the first pressure the slave valve is in an opened position to allow medical gas to flow from the regulated supply to the delivery passage.
38. (Previously Presented) The method of Claim 37 wherein forming the timing gas chamber includes forming a moveable piston to act as a wall of the timing gas chamber, the

moveable piston being positionable by a user to adjust the volume of the timing gas chamber.

39. (Previously Presented) The method of Claim 37 further comprising forming an orifice having an area dimensioned to provide the first pressure.
40. (Previously Presented) The method of Claim 39 wherein forming the orifice comprises fabricating a plurality of selectable orifices, each orifice having a respective area.
41. (Previously Presented) The method of Claim 37 wherein the delivery valve member is a flexible membrane.
42. (Previously Presented) The device of Claim 32 further comprising an adjustment system for providing the first pressure, the adjustment system including an orifice member having more than one orifice, each of a different size, which can be selectively positioned for selecting the flow rate of the gas into the timing gas chamber.
43. (Previously Presented) The method of Claim 37 further comprising fabricating an adjustment system for providing the first pressure, the adjustment system including an orifice member having more than one orifice, each of a different size, which can be selectively positioned for selecting the flow rate of the gas into the timing gas chamber.
44. (Previously Presented) A medical gas conserving device for delivery a fixed volume of medical gas to a patient in response to an inhalation, comprising:
 - a timing gas chamber for storing a user-adjustable volume of gas up to a first pressure, wherein the timing gas chamber includes a moveable piston acting as a wall of the timing gas chamber, the moveable piston being positionable by a user to adjust the volume of the timing gas chamber;
 - a vent to exhaust the gas stored in the timing gas chamber to atmosphere;

a pilot valve disposed between the timing gas chamber and the vent, the pilot valve biased in a closed position to inhibit gas flow from the timing gas chamber to the vent, the pilot valve in gas communication with a patient via a passage such that a vacuum in the passage opens the pilot valve to allow gas flow from the timing gas chamber to the vent; and

a slave valve disposed between a regulated supply of medical gas and a delivery passage to the patient, the slave valve in gas communication with the timing gas chamber such that when gas in the timing gas chamber is at the first pressure the slave valve is in a closed position to inhibit the flow of medical gas from the regulated supply to the delivery passage, and when gas in the timing gas chamber is below the first pressure the slave valve is in an opened position to allow medical gas to flow from the regulated supply to the delivery passage.

45. (Previously Presented) The device of Claim 44 wherein the first pressure is determined by the area of an orifice.
46. (Previously Presented) The device of Claim 45 wherein the orifice is selected from a plurality of orifices, each orifice having a respective area.
47. (Previously Presented) The device of Claim 44 wherein the delivery valve member is a flexible membrane.
48. (Previously Presented) The device of Claim 44 further comprising an adjustment system for providing the first pressure, the adjustment system including an orifice member having more than one orifice, each of a different size, which can be selectively positioned for selecting the flow rate of the gas into the timing gas chamber.
49. (Previously Presented) A method of manufacturing a medical gas conserving device for delivery a fixed volume of medical gas to a patient in response to an inhalation, comprising:

forming a timing gas chamber for storing a user-adjustable volume of gas up to a first pressure including forming a moveable piston to act as a wall of the timing gas chamber, the moveable piston being positionable by a user to adjust the volume of the timing gas chamber;

forming a vent to exhaust the gas stored in the timing gas chamber to atmosphere;

disposing a pilot valve between the timing gas chamber and the vent, the pilot valve being biased in a closed position to inhibit gas flow from the timing gas chamber to the vent, the pilot valve in gas communication with a patient passage such that a vacuum in the passage opens the pilot valve to allow gas flow from the timing gas chamber to the vent; and

disposing a slave valve between a regulated supply of medical gas and a delivery passage to the patient, the slave valve in gas communication with the timing gas chamber such that when gas in the timing gas chamber is at the first pressure the slave valve is in a closed position to inhibit the flow of medical gas from the regulated supply to the delivery passage, and when gas in the timing gas chamber is below the first pressure the slave valve is in an opened position to allow medical gas to flow from the regulated supply to the delivery passage.

50. (Previously Presented) The method of Claim 49 further comprising forming an orifice having an area dimensioned to provide the first pressure.
51. (Previously Presented) The method of Claim 50 wherein forming the orifice comprises fabricating a plurality of selectable orifices, each orifice having a respective area.
52. (Previously Presented) The method of Claim 49 wherein the delivery valve member is a flexible membrane.
53. (Previously Presented) The method of Claim 49 further comprising fabricating an adjustment system for providing the first pressure, the adjustment system including an

orifice member having more than one orifice, each of a different size, which can be selectively positioned for selecting the flow rate of the gas into the timing gas chamber.